



## NORdcanopy

### OZ 4.0 Ozone Cleaning System Maintenance and User Manual

## Sisukord

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ETS NORD OZ-cleaning system uses ozone to destroy grease particles in the canopy exhaust chamber and in ducts.

Facts about ozone:

- Ozone is a colourless gas, the sharp smell of which can be detected by a person at a concentration of 0.02 ppm (0,4 mg/m<sup>3</sup>).
- The smell of ozone is similar to the smell of chlorine used in swimming pools.
- The use of ozone is subject to the applicable protection legislation. For example, in Sweden, the Swedish Work Environment Authority provides the following hygienic limits for ozone:
  - 0,05 ... 0,2 ppm (during working time, 8 hours).
  - (Directive 2000/39/EC) 0.3 ppm (15 minutes).
- Acute exposure to ozone may result in the following damage:
  - Skin irritation and burning sensation.
  - Severe irritation and burns in eyes and vision loss.
  - Pulmonary irritation in the respiratory tract and respiratory problems.
- If the presence of ozone is detected indoors, the Ozone Module must be switched off immediately and the area must be ventilated.

### Warnings!



**This device emits ozone!**

Prolonged exposure to ozone can cause bodily injury.



**When removing grease filters, make sure that the ozone unit is turned off!**



**Risk of falling!**

Make sure installation and service personnel have stable work platforms when installing the device.



**ALWAYS power off the system before any maintenance work!**

## 1. ETS NORD kitchen canopy maintenance instructions

- To ensure the best hygiene, fire safety and functionality, it is important to maintain cleanliness in the entire kitchen, including the appliances located in the kitchen. The frequency of cleaning the canopy depends on its use and should be determined based on the intensity of kitchen use. The canopies are cleaned by gently wiping them, using detergents suitable for stainless steel. The use of highly alkaline substances (pH > 11) should be avoided.
- All internal and external surfaces of the kitchen canopy, including light fixtures, are cleaned using neutral cleaning agents. Carefully rinse the surfaces after cleaning, to avoid harmful interactions of cleaning agents and high temperatures.
- When maintaining the HZ canopy, its filters should be washed up to once a week, according to the intensity of use of the canopy - this significantly increases the efficiency of the filters, which means that even less grease reaches the further duct system.
- To clean the exhaust chamber, HFK filters are removed from the kitchen canopy. To clean the supply chamber, the front panel of the canopy and control unit (if there is any) must be removed.

Before starting canopy maintenance, you must always turn off the system from the OZ cleaning system LCD control panel by selecting the “Off” mode under “System state”.

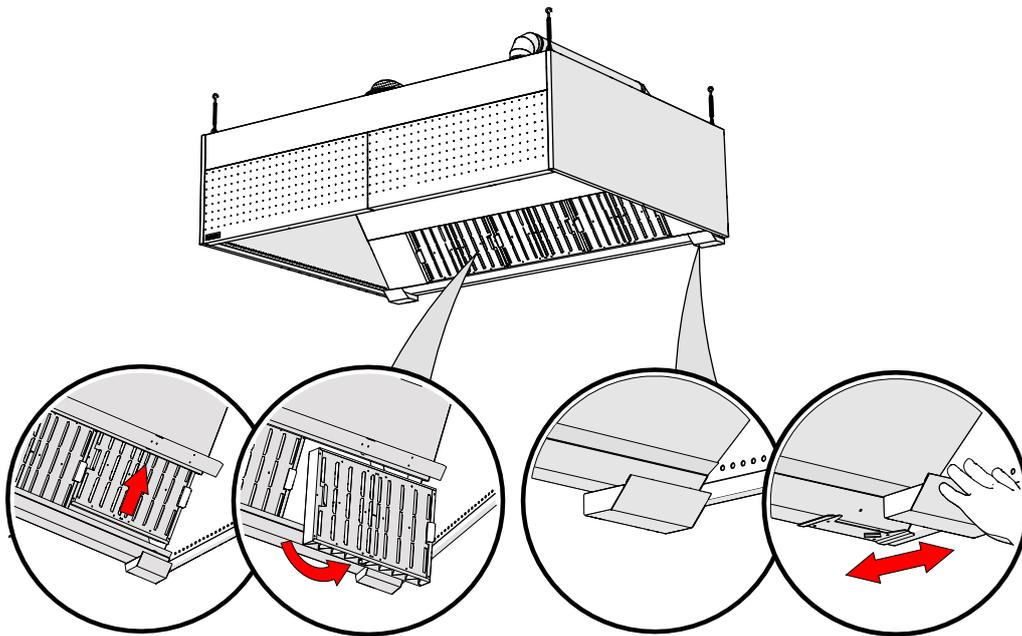
**ATTENTION!** Do not use hard or abrasive detergents, chlorine or bleach when cleaning the canopy!

Never clean the kitchen canopy when any of its surfaces are hot or in use.

The OZ-cleaning system control unit must be removed from the canopy before cleaning the interior of the canopy or the exhaust duct.

Never pour water or liquid cleaning agents on or inside the OZ control unit.

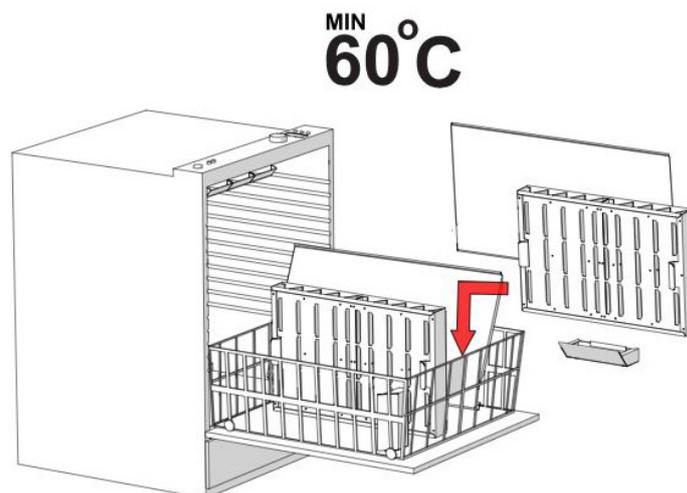
### 1.1 HFK grease filters and grease cups



Removing the HFK grease filters and grease cups from the kitchen canopy to clean them.

**ATTENTION!** Liquid grease must always be disposed of using methods approved according to local regulations.

HFK grease filters and grease collection containers may be washed by hand, in a dishwasher, or steam cleaned.



## 2. OZ 4.0 ozone system operation description

The OZ 4.0 ozone cleaning system operates normally when no alarms are active. If there is a pressure drop in the system (below 20 Pa), the device notifies you with an alarm and continues working only when the pressure has risen again (above 20 Pa).

### 2.1 Using the LCD panel of the OZ cleaning system



- Press the **OK** button to enter the menu and access the changes.
- Turn the **OK** button to navigate in the menu.
- Press the **ESC** button to cancel changes or move back to the previous menu.
- Holding down the **ESC** button for a few seconds of time returns to the basic mode. The display shows the basic view, the background light dims.
-  symbol represents a settings menu meant for the ETS NORD technicians, requires a passcode.

### 2.2 Menu view – NORDcanopy OZ

	NORDcanopy OZ	
	System state	Off >
	System work permission	Disabled
	System information	>
	Ozone unit 1	>

In the LCD **NORDcanopy OZ** menu, you can turn the system state on/off and see relevant information about the device state.

#### NORDcanopy OZ > System state

	System state
<input type="radio"/>	Off
<input checked="" type="radio"/>	On
<input type="radio"/>	Smart schedule

- You can disable the OZ system by changing the **System state** mode to **Off**.
- You can enable the OZ system by changing the **System state** mode to **On**.
- The **Smart schedule** state is only to be used when an ETS NORD technician in cooperation with the restaurant manager has previously created an automatic schedule. **If this has not been done, then the system will not automatically enable/disable itself.**

#### NORDcanopy OZ > System work permission

	NORDcanopy OZ
	System state Off >
	System work permission <b>Enabled</b>
	System information >
	Ozone unit 1 >

The OZ system does not have an alarm that will notify the user whether the system has a work permission from building automation or another control device. However, the user can confirm the permission state if this functionality is used in the system, then the line **System work permission** will be displayed in the

menu, state **Enabled** means that the system has the necessary work permission and state **Disabled** means that it does not have the necessary work permission.

### 2.3 Menu view – System information

NORDcanopy OZ > System information

System information	
Operation status	Off
Critical error	Normal
Service	Normal

**System information** displays relevant information about the state of the ozone unit(s).

- **Operation status** – displays whether the unit(s) are working or not.
- **Critical error** – state is **Normal** when the system has no active errors that affect the regular operation of the system.
  - When the state is **Alarm** you should immediately contact the ETS NORD service department ([service@etsnord.com](mailto:service@etsnord.com)) to arrange a maintenance appointment to fix the errors.
- **Service** – displays whether the unit needs maintenance work. When the state is **Alarm** you should contact the ETS NORD service department ([service@etsnord.com](mailto:service@etsnord.com)) to arrange a maintenance appointment.

### 2.4 Menu view – Ozone unit 1

NORDcanopy OZ > Ozone unit 1 > Ozone unit mode

Ozone unit 1	
Ozone unit mode	Mode 3-3
Pressure	70 Pa
Time to next service	417 d

In the menu view **Ozonator 1**, line **Ozonator mode** displays to the user information about the operating mode in which the device is currently operating. Possible operating modes are **Mode 3-1**, **Mode 3-2** or **Mode 3-3**.

NORDcanopy OZ > Ozone unit 1 > Pressure

Ozone unit 1	
Ozone unit mode	Mode 3-3
Pressure	70 Pa
Time to next service	417 d

In the menu view **Ozonator 1**, line **Pressure** will display the negative pressure value (**must be at least 20 Pa to work**) in the extraction chamber of the canopy).

NORDcanopy OZ > Ozone unit 1 > Time to next service

Ozone unit 1	
Ozone unit mode	Mode 3-3
Pressure	70 Pa
Time to next service	417 d

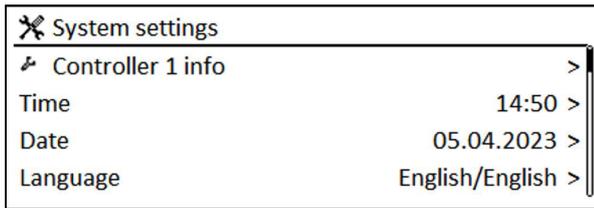
In the menu view **Ozone unit 1**, line **Time to next service** information is displayed to the user about how many days are left until the device needs service by an ETS NORD technician. When the time is up, the device notifies the user with an alarm, and they must contact an ETS NORD service for the device maintenance. Service e-mail: [service@etsnord.com](mailto:service@etsnord.com).

### 2.5 Multiple ozone units

NORDcanopy OZ	
System state	Off >
System work permission	Disabled
System information	>
Ozone unit 1	>
Ozone unit 2	>

If the system has several ozone units, then turning the system on/off is still done from the **NORDcanopy OZ** menu under **System state** - it turns all the devices on and off. But the additional devices are referenced as **Ozone unit x** in the menu. When entering the **Ozone unit x** menu, the same structure applies as in the case of **Ozone unit 1**.

### 3. System settings menu



System settings include setting the time, date, and language as well display settings and device type information.

#### 3.1 Setting date, time, and language

It is important that the time and date are correct. Alarm information, for instance, shows when an alarm has been activated and inactivated. It is highly recommended to ensure that the time and date are correct. The device clock takes daylight savings and leap years into account automatically. Hours and minutes can be set separately.

##### System settings > Time



1. Set hours and press **OK** to accept.
2. Set minutes and press **OK** to accept.
3. Press **Esc** to cancel and exit if needed.

##### System settings > Date



1. Set Day and press **OK** to accept (name of weekday is updated automatically).
2. Set Month and press **OK** to accept.
3. Set Year and press **OK** to accept.
4. Press **Esc** to exit.

##### System settings > Language



You can change the LCD/control unit **language** here if the device has more than one language.

### 3.2 Display settings

System settings > Display settings

✕ Display settings	
Display version	xxxxx
Contrast	75 >

You can adjust contrast. If you wish the display to be brighter, set a smaller numerical value. The setting range is 50... 100. The display changes after you have confirmed the setting change.

System settings > Type info

✕ Type info	
Serial number	xxxxxxx
Application version	x.x.x
Ouman Ouflex	x.x.x
Display	x.x.x
Platform SW	x.x.x

**Type information** shows the device platform version and application version. The name of the application and version is determined by the manufacturer. This information is useful especially in the case of maintenance or upgrades.

### 4. Alarms menu

! Alarms	!	2
Active alarms	>	
Alarm history	>	
Acknowledge all alarms	>	
Reset alarm history	>	

In the LCD alarm menu, you can check the active alarms and what alarms have been active. The number of active alarms is shown in the right corner of the main view.

1. Pressing the **OK** button will acknowledge the alarm.
2. Pressing the **Esc** button will silence the alarm but does not acknowledge it.

Alarms > Active alarms

! Active alarms	!	2
06.04.2023 15:15:38 [1.1] Contact service@ets >		
!	06.04.2023 16:15:38 [1.1] Check safety swi	>

Every active alarm is shown in a separate row, where you can see when the alarm has become active.

Press **OK** to get more information about the alarm.

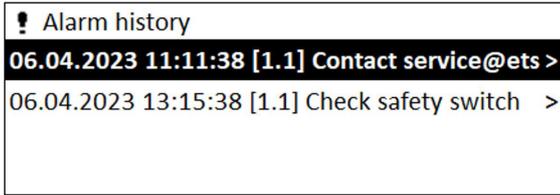
An exclamation mark in front of the date shows that the alarm has been silenced by pressing **Esc**.

! Pressure dropped < 20 Pa	<
Received 25.10.2023 23:27:21	
Press OK to acknowledge the alarm.	

The heading of the alarm view shows the reason for the alarm

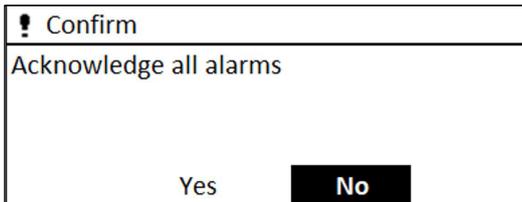
The body has the time when the alarm was activated.

Alarms > Alarm history



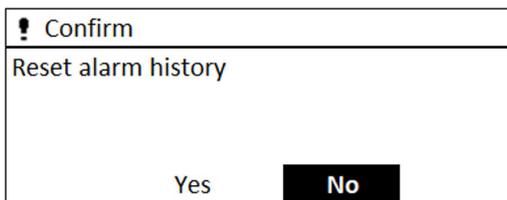
You can see the cause of the alarm and when the alarm has become active (e.g., 06.04.2023 at 11:11:38). The last 10 alarms can be seen in **Alarm history**.

Alarms > Acknowledge all alarms



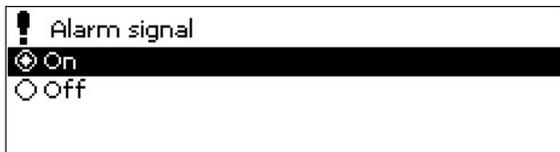
Before acknowledging all alarms, confirmation is requested.

Alarms > Reset alarm history



Before deleting alarm history, confirmation is requested.

Alarms > Alarm signal



Allows to enable/disable all ozone unit sounds.

## 5. LED notification panel

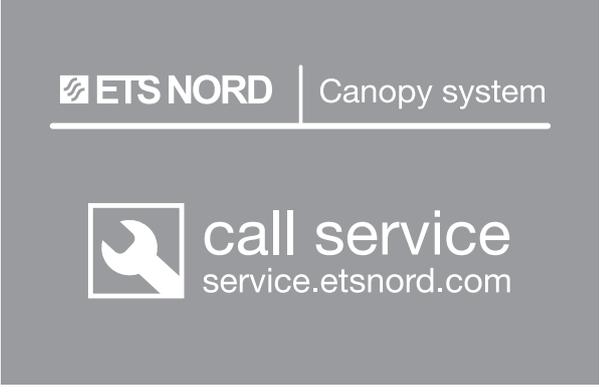
The LED notification panel is an optional accessory and is not part of the main OZ 4.0 ozone cleaning system.

The LED notification panel is designed to visually convey to the user in a simplified manner the status of the OZ 4.0 ozone cleaning system.



ETS NORD | Canopy system

When “ETS NORD Canopy system” is lit the system is operating normally.



ETS NORD | Canopy system

When “ETS NORD Canopy system” and “Call service” are lit then the system is operating but requires maintenance.



call service  
service.etsnord.com



ETS NORD | Canopy system

When “ETS NORD Canopy system” is lit and “Call service” is lit in red, then the system is operating but requires immediate maintenance.



call service  
service.etsnord.com



call service  
service.etsnord.com

When only the “Call service” is lit in red then the system is no longer operating and is experiencing a critical error and needs immediate maintenance service.



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*Let's move the air together!*